IN THE CLAIMS:

Please **AMEND** the claims as follows:

1. (Currently Amended) An implantable medical device for detection of changes in impedance in a patient, comprising:

means for generating measured impedances;

means for calculating period average impedances corresponding to a plurality of the measured impedances generated during a first time period;

means for generating an adaptive baseline trend of the ~~measured impedances corresponding to a first time period~~ calculated period average impedances, and updating the adaptive baseline trend based on a currently generated baseline trend and a previously generated baseline trend to generate an updated baseline trend;

means for generating a short term trend of the measured impedances corresponding to a second time period less than the first time period, and updating the short term trend based on currently generated short term trend and a previously generated short term trend to generate an updated short term trend; and

means for accumulating a difference between the ~~adaptive~~ updated baseline trend and one of a most recent measured impedance and the updated short term trend of the measured impedances.

2. (Canceled)

3. (Canceled)

4. (Previously Presented) The implantable medical device of claim 1, wherein the accumulated difference is set to zero when the short term trend intersects the adaptive baseline trend.

5. (Original) The implantable medical device of claim 1, wherein the adaptive baseline trend is initially generated using a first computation scheme and is subsequently generated using a second computation scheme different from the first computation scheme.

6. (Original) The implantable medical device of claim 5, wherein the first computation scheme is performed at a first rate and the second computation scheme is performed at a second rate less that the first rate.

7. (Original) The implantable medical device of claim 6, wherein the first rate is computed in response to a predetermined number of the generated measured impedances.

8. (Original) The implantable medical device of claim 7, wherein the predetermined number is equal to four.

9. (Original) The implantable medical device of claim 1, wherein the short term trend is initially generated using a first computation scheme and is subsequently generated using a second computation scheme different from the first computation scheme.

10. (Original) The implantable medical device of claim 9, wherein the first computation scheme is performed at a first rate and the second computation scheme is performed at a second rate less that the first rate.

11. (Original) The implantable medical device of claim 10, wherein the first rate is computed in response to a predetermined number of the generated measured impedances.

12. (Original) The implantable medical device of claim 11, wherein the predetermined number is equal to four.

13. (Previously Presented) The implantable medical device of claim 1, further comprising means for comparing the accumulated difference to a predetermined threshold and determining corresponding significant events in response to the comparing.

14. (Original) The implantable medical device of claim 13, wherein the significant events include one of storing data within the implantable medical device, apply or modifying a delivered therapy, notifying the patient, notifying medical personnel, and modifying frequency of impedance measurement.

15. (Original) The implantable medical device of claim 1, wherein the measured impedance is generated between 12 pm and 5 pm.

16. (Currently Amended) ~~The implantable medical device of claim 1, further comprising~~ An implantable medical device for detection of changes in impedance in a patient, comprising:

means for generating measured impedances;

means for generating an adaptive baseline trend of the measured impedances corresponding to a first time;

means for generating a short term trend of the measured impedances corresponding to a second time period less than the first time;

means for accumulating a difference between the adaptive baseline trend and one of a most recent measured impedance and the short term trend of the measured impedances; and

means for updating the short term trend by generating a weighted sum of the short term trend for two previous days and the measured impedance generated for the current day and the two previous days.

17. (Currently Amended) ~~The implantable medical device of claim 1, further comprising~~ An implantable medical device for detection of changes in impedance in a patient, comprising:

means for generating measured impedances;

means for generating an adaptive baseline trend of the measured impedances corresponding to a first time;

means for generating a short term trend of the measured impedances corresponding to a second time period less than the first time;

means for accumulating a difference between the adaptive baseline trend and one of a most recent measured impedance and the short term trend of the measured impedances; and

means for updating the adaptive baseline trend by setting the adaptive baseline trend equal to a previous adaptive baseline trend reduced by a predetermined downdrift in response to the current adaptive baseline trend being greater than the current short term trend, and by setting the adaptive baseline trend equal to the previous adaptive baseline trend increased by a predetermined updrift in response to the current adaptive baseline trend being less than the current short term trend, wherein the updrift is greater than the downdrift.

18. (Original) The implantable medical device of claim 17, wherein the downdrift is approximately equal to 0.055 ohms and the updrift is approximately equal to 0.18 ohms.

19. (Original) The implantable medical device of claim 14, wherein the determined significant events are subsequently terminated in response to the short term trend being equal to the adaptive baseline trend.

20. (Original) The implantable medical device of claim 1, wherein the measured impedances are generated a predetermined number of days prior to generation of the adaptive baseline trend and the short term trend.

21. (Currently Amended) A method for ~~detection of~~ detecting changes in impedance ~~a patient~~ in a medical device, comprising:

generating measured impedances;

generating an adaptive baseline trend of the measured impedances corresponding to a first time period, and updating the adaptive baseline trend based on a currently generated baseline trend and a previously generated baseline trend to generate an updated baseline trend;

generating a short term trend of the measured impedances corresponding to a second time period less than the first time period, and updating the short term trend based on a currently generated short term trend and a previously generated short term trend to generate an updated short term trend; and

generating an accumulated difference between the ~~adaptive~~ updated baseline trend and one of a most recent measured impedance and the updated short term trend of the measured impedances.

22. (Canceled)

23. (Canceled)

24. (Previously Presented) The method of claim 21, further comprising setting the accumulated difference to zero when the short term trend intersects the adaptive baseline trend.

25. (Original) The method of claim 21, wherein the adaptive baseline trend is initially generated using a first computation scheme and is subsequently generated using a second computation scheme different from the first computation scheme.

26. (Original) The method of claim 25, wherein the first computation scheme is performed at a first rate and the second computation scheme is performed at a second rate less that the first rate.

27. (Original) The method of claim 26, wherein the first rate is computed in response to a predetermined number of the generated measured impedances.

28. (Original) The method of claim 27, wherein the predetermined number is equal to four.

29. (Original) The method of claim 21, wherein the short term trend is initially generated using a first computation scheme and is subsequently generated using a second computation scheme different from the first computation scheme.

30. (Original) The method of claim 29, wherein the first computation scheme is performed at a first rate and the second computation scheme is performed at a second rate less that the first rate.

31. (Original) The method of claim 30, wherein the first rate is computed in response to a predetermined number of the generated measured impedances.

32. (Original) The method of claim 31, wherein the predetermined number is equal to four.

33. (Previously Presented) The implantable medical device of claim 21, further comprising comparing the accumulated difference to a predetermined threshold and determining corresponding significant events in response to the comparing.

34. (Original) The method of claim 33, wherein the significant events include one of storing data within the implantable medical device, apply or modifying a delivered therapy, notifying the patient, notifying medical personnel, and modifying frequency of impedance measurement.

35. (Original) The method of claim 21, wherein the measured impedance is generated between 12 pm and 5 pm.

36. (Currently Amended) ~~The method of claim 21, further comprising~~ A method for detection of changes in impedance a patient, comprising:

generating measured impedances;

generating an adaptive baseline trend of the measured impedances corresponding to a first time period;

generating a short term trend of the measured impedances corresponding to a second time period less than the first time period; and

generating an accumulated difference between the adaptive baseline trend and one of a most recent measured impedance and the short term trend of the measured impedances; and

updating the short term trend by generating a weighted sum of the short term trend for two previous days and the measured impedance generated for the current day and the two previous days.

37. (Currently Amended) ~~The method of claim 21, further comprising~~ A method for detection of changes in impedance a patient, comprising:

generating measured impedances;

generating an adaptive baseline trend of the measured impedances corresponding to a first time period;

generating a short term trend of the measured impedances corresponding to a second time period less than the first time period; and

generating an accumulated difference between the adaptive baseline trend and one of a most recent measured impedance and the short term trend of the measured impedances; and

updating the adaptive baseline trend by setting the adaptive baseline trend equal to a previous adaptive baseline trend reduced by a predetermined downdrift in response to the current adaptive baseline trend being greater than the current short term trend, and by setting the adaptive baseline trend equal to the previous adaptive baseline trend increased by a predetermined updrift in response to the current adaptive baseline trend being less than the current short term trend, wherein the updrift is greater than the downdrift.

38. (Original) The method of claim 37, wherein the downdrift is approximately equal to 0.055 ohms and the updrift is approximately equal to 0.18 ohms.

39. (Original) The method of claim 34, wherein the determined significant events are subsequently terminated in response to the short term trend being equal to the adaptive baseline trend.

40. (Original) The method of claim 21, wherein the measured impedances are generated a predetermined number of days prior to generation of the adaptive baseline trend and the short term trend.

41. (Previously Presented) An implantable medical device, comprising:

a plurality of electrodes;

an output circuit outputting a plurality of output pulse signals along a vector formed by electrodes of the plurality of electrodes;

a measurement circuit generating a corresponding plurality of measurement signals in response to the plurality of output pulse signals; and

a microprocessor determining a plurality of period average impedances in

response to the plurality of output pulse signals and the plurality of measurement signals corresponding to a predetermined time period, and generating an adaptive baseline trend of period average impedances of the plurality of period average impedances corresponding to a first time period and a short term trend of period average impedances of the plurality of period average impedances corresponding to a second time period less than the first time period, the microprocessor generating an accumulated difference between the baseline trend and one of a most recent period average impedance and the short term trend.

42. (Canceled)

43. (Canceled)

44. (Previously Presented) The implantable medical device of claim 41, wherein the accumulated difference is set to zero when the short term trend intersects the adaptive baseline trend.

45. (Original) The implantable medical device of claim 41, wherein the adaptive baseline trend and the short term trend are initially generated using a first computation scheme and are subsequently generated using a second computation scheme different from the first computation scheme.

46. (Original) The implantable medical device of claim 45, wherein the first computation scheme is performed at a first rate and the second computation scheme is performed at a second rate less that the first rate.

47. (Original) The implantable medical device of claim 46, wherein the first rate is computed in response to a predetermined number of the generated measured impedances.

48. (Original) The implantable medical device of claim 47, wherein the predetermined number is equal to four.

49. (Previously Presented) The implantable medical device of claim 41, wherein the microprocessor compares the accumulated difference to a predetermined threshold and determines corresponding significant events in response to the comparing.

50. (Original) The implantable medical device of claim 49, wherein the significant events include one of storing data within the implantable medical device, apply or modifying a delivered therapy, notifying the patient, notifying medical personnel, and modifying frequency of impedance measurement.

51. (Original) The implantable medical device of claim 41, wherein the microprocessor determines each period average impedance of the plurality of period average impedances between 12 pm and 5 pm.

52. (Original) The implantable medical device of claim 41, wherein the microprocessor updates the short term trend by generating a weighted sum of the short term trend for two previous days and the period average impedance determined for the current day and the two previous days.

53. (Original) The implantable medical device of claim 41, wherein the microprocessor updates the adaptive baseline trend by setting the adaptive baseline trend equal to a previous adaptive baseline trend reduced by a predetermined downdrift in response to the current adaptive baseline trend being greater than the current short term trend, and by setting the adaptive baseline trend equal to the previous adaptive baseline trend increased by a predetermined updrift in response to the current adaptive baseline trend being less than the current short term trend, wherein the updrift is greater than the downdrift.

54. (Previously Presented) The implantable medical device of claim 53, wherein the downdrift is approximately equal to 0.055 ohms and the updrift is approximately equal to 0.18 ohms.

55. (Previously Presented) The implantable medical device of claim 51, wherein the determined significant events are subsequently terminated in response to the short term trend being equal to the adaptive baseline trend.

56. (Original) The implantable medical device of claim 41, wherein period average impedances of the plurality of period average impedances are determined a predetermined number of days prior to generation of the adaptive baseline trend and the short term trend.

57. (Previously Presented) A computer readable medium having computer executable instructions for performing a method, the method comprising:

generating measured impedances;

generating an adaptive baseline trend of the measured impedances corresponding to a first time period;

generating a short term trend of the measured impedances corresponding to a second time period less than the first time period; and

generating an accumulated difference between the adaptive baseline trend and one of a most recent measured impedance and the short term trend of the measured impedances.